

IN THE CLAIMS

1. (currently amended) A method of screening for therapeutic agents useful in the treatment of ~~a disease selected from hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, urological diseases, endocrinological diseases and esophageal cancer, stomach cancer, colon cancer, liver cancer, lung cancer, uterine cancer, ovarian cancer, or kidney cancer~~ in a mammal comprising the steps of

i) contacting a test compound with a GPR14 polypeptide, wherein the GPR14 polypeptide is selected from the group consisting of:

a polypeptide consisting of the amino acid sequence SEQ ID NO:2,

a polypeptide comprising the amino acid sequence SEQ ID NO:2,

a polypeptide which is at least 90% homologous to the amino acid sequence SEQ ID NO:2,

a polypeptide which is at least 95% homologous to the amino acid sequence SEQ ID NO:2,

a polypeptide which is at least 98% homologous to the amino acid sequence SEQ ID NO:2, and

a polypeptide which is at least 99% homologous to the amino acid sequence SEQ ID NO:2;[[,]]

ii) detecting binding of the said test compound to the said GPR14 polypeptide;
and

iii) determining if the test compound has an effect on a symptom of the cancer in an in vivo assay.

2. (currently amended) A method of screening for therapeutic agents useful in the treatment of ~~a disease selected from hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, urological diseases, endocrinological diseases and~~ esophageal cancer, stomach cancer, colon cancer, liver cancer, lung cancer, uterine cancer, ovarian cancer, or kidney cancer in a mammal comprising the steps of

i) contacting a cell comprising a GPR14 polypeptide with a test compound, wherein the GPR14 polypeptide is selected from the group consisting of:

a polypeptide consisting of the amino acid sequence SEQ ID NO:2, a polypeptide comprising the amino acid sequence SEQ ID NO:2,

a polypeptide which is at least 90% homologous to the amino acid sequence SEQ ID NO:2,

a polypeptide which is at least 95% homologous to the amino acid sequence SEQ ID NO:2,

a polypeptide which is at least 98% homologous to the amino acid sequence SEQ ID NO:2, and

a polypeptide which is at least 99% homologous to the amino acid sequence SEQ ID NO:2;

ii) ~~→~~ determining an the activity of a GPR14 polypeptide in the presence and at a certain concentration of a test compound or in the absence of the said test compound, wherein the activity is reflected by an observable change in the level in adenylate cyclase activity, guanylylcyclase activity, intracellular calcium concentration, phospholipase C activation, phospholipase D activation, or inositol phospholipid hydrolysis; and

iii) determining if the test compound has an effect on a symptom of the cancer in an *in vivo* assay.

3. (canceled)

4. (previously presented) The method of claim 1, wherein the step of contacting is in or at the surface of a cell.

5. (previously presented) The method of claim 1, wherein the cell is *in vitro*.

6. (previously presented) The method of claim 1, wherein the step of contacting is in a cell-free system.

7. (previously presented) The method of claim 1, wherein the polypeptide is coupled to a detectable label.

8. (previously presented) The method of claim 1, wherein the compound is coupled to a detectable label.

9. (previously presented) The method of claim 1, wherein the test compound displaces a ligand which is first bound to the polypeptide.

10. (previously presented) The method of claim 1, wherein the polypeptide is attached to a solid support.

11. (previously presented) The method of claim 1, wherein the compound is attached to a solid support.

12-26. (canceled)